

**CLAIMS**

1. Method for making a sensor of physical quantities consisting of the preparation of an active sensor part (10, 12) and a base (30), the active part comprising at least one wafer provided with conductive connection pads (22) on one face and the base being provided with conductive pins (32), the electrical connection of the pads and the pins by conductive elements (40) and then the plunging of the wafer and the pin ends into an electrolytic bath, the performance of an electrolytic deposition of at least one conductive metal (42) on the pin ends, the pads and the conductive elements that connect them and the performance of an oxidizing or nitrizing operation on this metal to make an insulating coat (44) on the connection pads, the connection pin ends and the conductive elements that connect them.

2. Method according to claim 1, characterized in that the electrolytic deposition is obtained by the migration of metal ions coming from a liquid solution, with the passage of electrical current into the solution.

3. Method according to claim 1, characterized in that the electrolytic deposition is an electroless deposition carried out by the migration of metal ions coming from a liquid solution, without the passage of electrical current.

4. Method according to one of the above claims, characterized in that the electrolytically deposited conductive metal is nickel or tantalum or tungsten or molybdenum.

5. Method according to one of the claims 1 to 4, characterized in that the connection pins and the connection pads are connected by bonded wires (40).

6. Method according to one of the claims 1 to 4, characterized in that the conductive elements that connect the pads electrically and mechanically to the pins are constituted by an electrolytic metal deposit (34).

7. Sensor of physical quantities obtained by the method of one of the above claims, characterized in that it constitutes a sensor of pressure, stresses, acceleration, temperature, gas or liquid.